

### **Amendment to the Claims:**

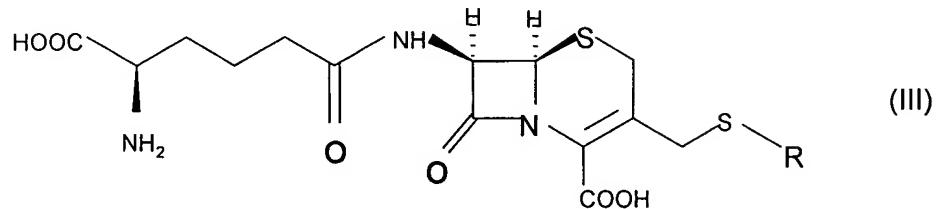
The listing of claims will replace all prior versions, and listings of claims in the prior application.

**Listing of Claims:**

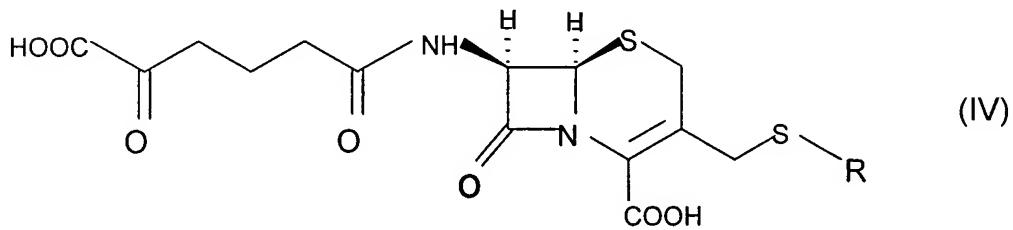
Claims 1 - 62 (Cancelled)

Claim 63 (new): A process for preparing 3-thiolated cephalosporanic acid derivatives comprising the steps of:

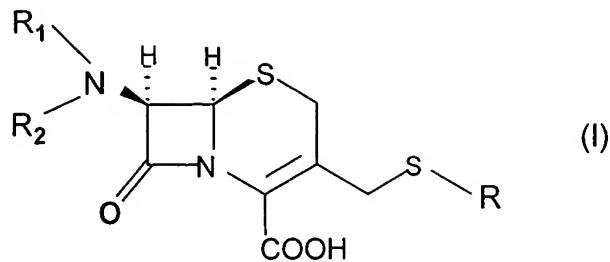
enzymatically converting a compound of formula III:



into a 3-thiolated- $\alpha$ -ketoadipyl-7-aminocephalosporanic acid derivative of formula IV:



and enzymatically converting a compound of formula IV to form a 3-thiolated 7-ACA compound of formula I:



wherein R is a heterocyclic group comprising at least one nitrogen atom and R<sub>1</sub> and R<sub>2</sub> are both hydrogen atoms or one of them is a hydrogen atom and the other is an acyl donor.

Claim 64 (new): The process as claimed in claim 63, wherein the compound of formula III is enzymatically converted into a compound of formula I in one step by an immobilised enzyme system.

Claim 65 (new): The process as claimed in claim 64, wherein the enzyme system comprises a combination of co-immobilised D-amino acid oxidase/catalase in the presence of immobilised Glutaryl-7-ACA acylase.

Claim 66 (new): The process as claimed in claim 63, wherein the enzymation takes place at a temperature of approximately 20°C and at a pH of between 6.5 and 8.0.

Claim 67 (new): The process as claimed in claim 63, wherein the enzymes are co-immobilised using a suitable cross-linker agent in a suitable solid support.

Claim 68 (new): The process as claimed in claim 67, wherein the enzymes are in the form of crystals of a size suitable for use as a biocatalyst.

Claim 69 (new): The process as claimed in claim 63, wherein the enzymatic processes are carried out while maintaining the enzyme in dispersion in an aqueous substrate solution.

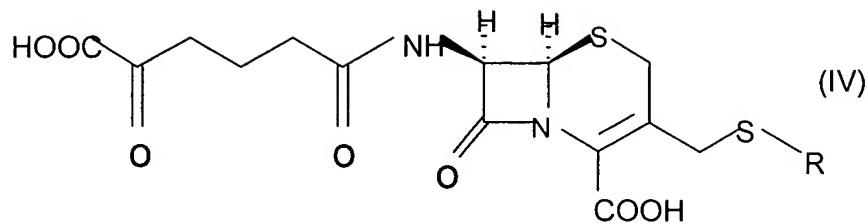
Claim 70 (new): The process as claimed in claim 63, wherein at least one of the enzymatic processes is carried out in a column.

Claim 71 (new): The process as claimed in claim 63 including the step of recovering the enzyme for reuse.

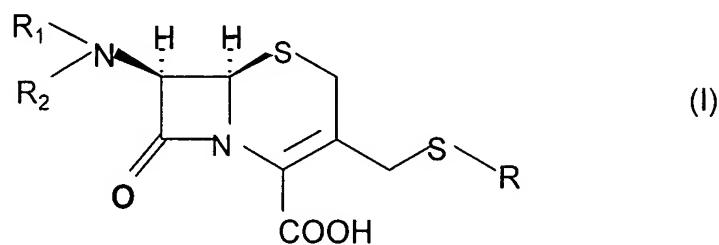
Claim 72 (new): The process as claimed in claim 63, wherein the compound of formula III is used without purification in a continuous process for obtaining any useful derivative.

Claim 73 (new): A process for preparing cephalosporanic acid derivatives comprising the steps of:

enzymatically converting a 3-thiolated  $\alpha$ -ketoadipyl 7-ACA compound of formula IV



to form a 3-thiolated 7-ACA compound of formula I



wherein R is a heterocyclic group comprising at least one nitrogen atom and R<sub>1</sub> and R<sub>2</sub> are both hydrogen atoms or one of them is a hydrogen atom and the other is an acyl donor.